

**Amended Claim 5**  
**With Markings to Show Changes**

5. (Tetra Amended) A recuperative heat exchanger for the exchange of heat across a plurality of heat transferring planar elements between a first fluid medium and a second fluid medium, said fluid mediums flowing in opposite directions to each other on opposite sides of said planar elements, said heat exchanger comprising:

a casing for containing a heat transfer package therein, said casing having a top end, a bottom end, a pair of respective lengthwise and widthwise opposed sides, each of said lengthwise sides provided with a pair of inlet and outlet ports, wherein each respective pair of inlet and outlet ports is dedicated to one of said first and second mediums for flow therethrough;

a heat transfer package disposed within said casing, said heat exchange package having a lengthwise extent and a widthwise extent, each of the fluid mediums following on their respective side of the planar elements a net flow path which extends longitudinally along the lengthwise extent, said package comprised of a plurality of generally rectangularly shaped planar elements continuously arranged in sequentially alternating directions in a folded accordion-like manner, each of said planar elements having substantially similar length, width and thickness with respect to each other, each of said planar elements integrally connected to an adjacent planar element along said length, said length and width of said casing substantially corresponding to said length and width of said package, opposing surfaces from each adjacent planar element defining an inter-layer space therebetween for receiving a flow of one of said fluid mediums therebetween, a direction of flow of each medium having a widthwise element and a lengthwise element when flowing within said inter-layer space, each of said planar elements having a corrugated pattern formed therein, said corrugated pattern extending the entire length and width of each respective planar element, said pattern corresponding to a series of alternating ridges and channels extending across the width of each respective planar element formed at an angle of more than 45 degrees with respect to said length of said planar elements, which pattern, in respect to the net flow path, are oriented in a more transverse than lengthwise direction, said corrugated pattern interrupted at substantially similar intervals to include a fold line for facilitating arranging each of said planar elements in an accordion-like manner, said fold lines defining said width of each respective element and being disposed parallel along said length of each of said elements, wherein when said heat transfer package is in an unfolded state, a pattern of ridges and channels of a first planar element is generally aligned with respect to a pattern of channels and ridges of a successive planar element, and

wherein when said heat transfer package is in a folded state, said pattern on every other planar element is co-extensive to the other and said ridges and channels between facing sides of adjacent planar elements form a crossing pattern to each other such that said crossing pattern creates a flow resistance to said respective fluid medium flowing over said respective side of said planar element such that a resistance to flow of each fluid medium is greater in said lengthwise direction of said heat transfer package than said widthwise direction, thereby increasing flow turbulence and heat transfer.

**REMARKS:**

The Examiner rejected claim 5 under 35 U.S.C. § 103(a) as being unpatentable over *Davis* in view of *Jenssen*. The Examiner states that "the corrugations 13B of *Jenssen* extend the entire width thereof." As shown in figure 4, the corrugations 13B only extend part way across the width dimension. Claim 5 has been amended to distinctly claim corrugations extending across the entire width having an angle greater than 45° with respect to the net flow path. As discussed in column 3, lines 42-column 4, line 1, *Jenssen* is only directed at increasing through-flow resistance rather than the flow distribution of the present non-obvious invention. The cited references neither teach, disclose or suggest the present non-obvious invention's linear corrugations extending across the entire width of the heat exchange surface rejection under 35 U.S.C. 103(a) is improper.

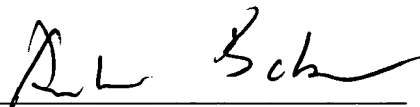
**REQUEST FOR EXTENSION OF THE TERM**

Applicant respectfully requests an extension of the normal term which expired February 29, 2001, for one month, to March 29, 2001.

Submitted herewith is a check for \$55 to cover the cost of the extension.

Any deficiency or overpayment should be charged or credited to Deposit Account No. 04-2219, referencing our Docket No. 5098.

Respectfully submitted,



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